

**PATENT APPLICATION**

**RESPONSE UNDER 37 CFR §1.116  
EXPEDITED PROCEDURE  
TECHNOLOGY CENTER ART UNIT 3747**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Yukihiro NAKASAKA

Group Art Unit: 3747

Application No.: 10/589,898

Examiner: S. VILAKAZI

Filed: August 18, 2006

Docket No.: 129122

For: INTAKE AIR AMOUNT VARIATION DETECTOR

**REQUEST FOR RECONSIDERATION AFTER FINAL REJECTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the February 18, 2009 Office Action, reconsideration of the above-identified application is respectfully requested in light of the following remarks.

Claims 1-14 and 16-19 are pending in this application. No claims are amended.

Claims 1-3, 5-7, 9-11, 13 and 16-19 were rejected under 35 U.S.C. §103(a) over Shomura, U.S. Patent No. 6,170,465, in view of Ishikawa et al., U.S. Patent No. 6,975,934, Mashiki, U.S. Patent No. 6,176,220, and Sugiyama et al., U.S. Patent No. 6,792,901. The rejection is respectfully traversed.

Claim 1 calls for a conversion means for converting the intake air amount variations among the cylinders to intake valve operating angle variations among the cylinders and/or intake valve lift amount variations among the cylinders. The Office Action, on page 6,

alleges that Sugiyama teaches these features at col. 1, lines 44-55. Applicant respectfully disagrees.

The cited portion of Sugiyama teaches a control system with an operation angle adjustment mechanism, an air-fuel ratio detector and a control unit. Nothing in the cited portion of Sugiyama teaches or suggests that these pieces of structure are capable of converting the intake air amount variations among the cylinders into intake valve operating angle variations among the cylinders and/or intake valve lift amount variations among the cylinders. That is, disclosure of an operation angle adjustment mechanism that adjusts the operation angle of intake valves and a controller that adjusts the operation angle based on fuel-air ratio is insufficient disclosure to suggest the above-referenced features of claim 1 because there is no teaching or suggestion that Sugiyama's intake air amount variations among the cylinders are converted to intake valve operating angle variations among the cylinders and/or intake valve lift amount variations among the cylinders.

Independent claims 5, 9, 13 and 16-19 recite similar features to those discussed above with respect to claim 1. Thus, claims 5, 9, 13 and 16-19 are patentable for the same reasons as discussed above with respect to claim 1.

Additionally, Applicant respectfully asserts that it would not have been reasonably predictable to combine Shomura, Ishikawa, Mashiki and Sugiyama without the aid of Applicant's specification. For example, the Office Action, on page 5, proposes the combination of Shomura and Ishikawa but fails to provide any reason why it would have been obvious for one of ordinary skill in the art to combine the references.

In particular, the Office Action, on page 6, alleges that it would have been obvious to modify the combination of Shomura and Ishikawa by the teachings of Mashiki in order to make adjustments to the fuel injection amount only when an excessive amount of air amount variation among cylinders occurs. Applicant respectfully asserts that this merely a recitation

of the objectives of the prior art references and thus fails to articulate and adequate rationale for combining individual pieces of structure from Shomura, Ishikawa, and Mashiki. See MPEP §§2141-2143.

The Office Action further alleges, on page 6, that it would have been obvious to modify Shomura, Ishikawa and Mashiki by the teachings of Sugiyama in order to accurately adjust the intake air amounts in each cylinder of the engine. Again, Applicant respectfully asserts that this statement is merely a recitation of the objectives of the prior art references and thus fails to articulate and adequate rationale for combining individual pieces of structure from Shomura, Ishikawa, Mashiki and Sugiyama.

Additionally, Applicant respectfully asserts that one of ordinary skill in the art would not have combined all four of Shomura, Ishikawa, Mashiki and Sugiyama because there is no indication that the references suffered from any deficiency such that one of ordinary skill in the art would have seen a need or desire to combine all four references.

The Office Action makes similar assertions for independent claims 5, 9, 13 and 16-19. Applicant respectfully asserts that the justifications for combining the applied references used to reject claims 5, 9, 13 and 16-19 suffer from similar deficiencies.

Thus, Applicant respectfully asserts that it is improper to combine all of Shomura, Ishikawa, Mashiki and Sugiyama in order to suggest the above-referenced features of claims 1, 5, 9, 13 and 16-19. Because such combination involves impermissible hindsight using knowledge gleaned only from Applicant's disclosure, such hindsight reconstruction of the claimed invention is improper. See MPEP §2145(X)(A). There are numerous engine control devices and methods. There appears to be no logical reason for one of ordinary skill in the art to seek out and combine individual pieces of structure from each of Shomura, Ishikawa, Mashiki and Sugiyama in order to construct claims 1, 5, 9, 13 and 16-19. The claimed combination would not have been obvious to try because there is not a finite number of

identified, predictable potential solutions to a recognized problem or need. See MPEP §§2143(E) and 2143.02. Applicant asserts that, given the circumstances, knowledge gleaned only from Applicant's disclosure was used, which is impermissible hindsight.

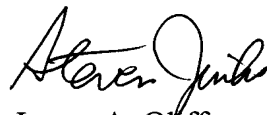
Claims 2-4, 6-8 and 10-12 are patentable by reason of their dependency from one of independent claims 1, 5 and 9, as well as for the additional features they recite.

It is respectfully requested that the rejection be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:SDJ/rle

Date: April 20, 2009

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